

CLAIMS

What is claimed is:

1. A service station system for an inkjet printer, comprising:
head caps to revolve between a capping position and an uncapping position of printer heads;
a slider to slide with respect to the head caps, and having wipers mounted on a front end portion thereof;
a slider movement unit to slide the slider; and
a revolution unit disposed between the head caps and the slider to revolve the head caps in association with the sliding of the slider with respect to the head caps.
2. The service station system as claimed in claim 1, wherein the revolution unit comprises:
a shaft disposed under the printer heads in a traverse direction with respect to a sliding direction of the slider;
a revolving member to revolve on the shaft and coupled with the head caps thereon; and
links, each hingedly coupled to the revolving member and the slider, to activate the revolving member while interlocking with the slider.
3. The service station system as claimed in claim 2, further comprising:
a first hinge shaft to protrude on a side of the slider; and
a second hinge shaft to protrude on a side of the revolving member, wherein the second hinge shaft is located a position lower than the first hinge shaft when the slider and revolving member are disposed in parallel to each other.
4. The service station system as claimed in claim 2, wherein each of the links comprises:
a body;
a driving hinge part having a first hinge hole on one end portion thereof to be engaged with the first hinge shaft of the slider; and

a moving hinge part having a second hinge hole disposed lower than the first hinge hole on the other end portion thereof to be engaged with the second hinge shaft of the revolving member.

5. The service station system as claimed in claim 3, further comprising:
a guide to guide the revolving of the body and disposed between the slider and the revolving member.

6. The service station system as claimed in claim 4, wherein the body revolves the revolving member upward and downward on the shaft while revolving on the first hinge shaft of the slider, and the second hinge hole of the moving hinge part is a long opening lengthened in a direction of the body.

7. The service station system as claimed in claim 2, further comprising:
a spring to restore the revolving member to the capping position, one end of the spring being fixed to the revolving member, and the other end of the spring being fixed to a rear side spaced in a certain interval from the revolving member.

8. The service station system as claimed in claim 6, further comprising:
a spring to restore the revolving member to the capping position, one end of the spring being fixed to the revolving member, and the other end of the spring being fixed to a rear side spaced in a certain interval from the revolving member.

9. The service station system as claimed in claim 1, wherein the slider movement unit comprises:

a rack provided on an upper surface of the slider along a sliding direction;
a pinion disposed over the slider and meshed with the rack; and
a motor to rotate the pinion.

10. The service station system as claimed in claim 1, wherein the slider slides in a perpendicular direction with respect to a printing direction of the printer heads.

11. A service station system for an inkjet printer, having a casing provided in a direction perpendicular to a printing direction of a carrier of the inkjet printer, comprising:

head caps to revolve between a capping position and an uncapping position of printer heads;

an entrance provided on a surface of the casing to face the printer heads;

a slider to slide with respect to the head caps, and having wipers to wipe the printer heads and spittoons to remove ink from the printer heads;

a slider movement unit to slide the slider; and

a revolution unit disposed between the head caps and the slider to revolve the head caps in association with the sliding of the slider with respect to the head caps.

12. The service station system as claimed in claim 11, wherein the revolution unit comprises:

a revolving member to couple to the head caps;

a shaft to couple to the revolving member to move upward and downward in the casing, and mounted in front of the entrance of the casing; and

links to connect the revolving member and the slider.

13. The service station system as claimed in claim 12, wherein the revolving member is sectioned into a plate on which the head caps are mounted, and a connecting portion provided on the plate.

14. The service station system as claimed in claim 13, wherein the connecting portion comprises a pair of ribs to protrude forward from an end of the plate and disposed opposite to each other.

15. The service station system as claimed in claim 14, wherein the ribs each comprises a shaft opening, so that the revolving member is coupled with the shaft of the revolution unit.

16. The service station system as claimed in claim 11, wherein the slider comprises:
a wiper connecting portion coupled to the wipers and having a pair of slits recessed along a side of the slider; and

a spittoon connecting portion provided with a pair of spitting holes on opposite sides of the slider,

wherein the spitting holes of the spittoon connecting portion are aligned with the slits of the wiper connecting portion.

17. The service station system as claimed in claim 10, further comprising:
a first hinge shaft to protrude on a side of the slider; and
a second hinge shaft to protrude on a side of the revolving member, wherein the second hinge shaft is located a position lower than the first hinge shaft when the slider and revolving member are disposed in parallel to each other.

18. The service station system as claimed in claim 17, wherein each of the links comprises:
a body;
a driving hinge part having a first hinge hole on one end portion thereof to be engaged with the first hinge shaft of the slider; and
a moving hinge part having a second hinge hole disposed lower than the first hinge hole on the other end portion thereof to be engaged with the second hinge shaft of the revolving member.

19. The service station system as claimed in claim 18, further comprising:
a step part provided between the moving hinge part and the body, and inclined downward with respect to the moving hinge part.

20. The service station system as claimed in claim 19, further comprising:
a guide to guide a revolving of the body and disposed between the slider and the revolving member, wherein a portion of the guide is bent.

21. The service station system as claimed in claim 20, wherein the step part comprises a bent portion to contact with the bent portion of the guide, to smoothly guide the upward and downward moving of the revolving member.